PSEG Nuclear LLC
P.O. Box 236, Hancocks Bridge, NJ 08038-0236

PSEG
Nuclear LLC

10 CFR 50.90

LR-N15-0187
LAR S15-04
AUG 31 2015

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

Salem Generating Station Unit 1
Renewed Facility Operating License No. DPR-70
NRC Docket No. 50-272

Subject: **Emergency License Amendment Request to Remove Pressurizer Power Operated Relief Valve (PORV) Position Indication Instrumentation from the Accident Monitoring Instrumentation Technical Specifications**

Pursuant to 10 CFR 50.90, PSEG Nuclear LLC (PSEG) requests an amendment to the renewed facility operating license listed above. The proposed changes would remove the Pressurizer PORV (1PR1 and 1PR2) position indication from the Salem Generating Station (Salem) Unit 1 Technical Specifications (TS) 3/4.3.3.7, Accident Monitoring Instrumentation.

Attachment 1 of this submittal provides an evaluation supporting the proposed changes. Attachment 2 provides the marked-up TS pages, with the proposed changes indicated. No regulatory commitments are contained in this submittal.

PSEG is requesting approval of the proposed TS change on an emergency basis as permitted by 10 CFR 50.91(a)(5). The emergency basis is discussed in Attachment 1. PSEG is required to restore the position switch to OPERABLE status by September 4, 2015 at 1630.

These proposed changes have been reviewed by the Plant Operations Review Committee. PSEG has concluded that the proposed changes present no significant hazards consideration under the standards set forth in 10 CFR 50.92.

PSEG is notifying the State of New Jersey of this License Amendment Request (LAR) by transmitting a copy of this letter and its attachments to the designated State Official.

Due to the emergency nature of this request this LAR is only for the specific line item for Salem Unit 1; however, PSEG intends to submit a subsequent LAR for Salem Unit 1 and 2 on a normal review basis to modify the Accident Monitoring Instrumentation TS to align with NUREG-1431.

10 CFR 50.90

If you have any questions or require additional information, please contact Mr. Brian Thomas at (856)339-2022.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on AUG 31 2015
(Date)

Sincerely,

John F. Perry

John F. Perry
Site Vice President
Salem Generating Station

Attachments:
1. Evaluation of Proposed Changes
2. Technical Specification Pages with Proposed Changes

C. Administrator, Region I, NRC
Project Manager, NRC
NRC Senior Resident Inspector, Salem
Mr. P. Mulligan, Chief, NJBNE
Mr. L. Marabella, Corporate Commitment Tracking Coordinator
Mr. T. Cachaza, Salem Commitment Tracking Coordinator

License Amendment Request to Remove Pressurizer Power Operated Relief Valve (PORV) Position Indication Instrumentation from the Accident Monitoring Technical Specifications

Evaluation of Proposed Changes

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1.0 DESCRIPTION

In accordance with the provisions of 10 CFR 50.90, PSEG Nuclear LLC (PSEG) requests an amendment to renewed facility operating license DPR-70 for the Salem Generating Station (Salem) Unit 1.

The proposed change would remove the Pressurizer Power Operated Relief Valve (PORV) position indication from the Accident Monitoring Instrumentation Technical Specifications (TS) 3/4.3.3.7 for the Salem Generating Station (Salem) Unit 1.

The proposed change conforms to the provisions of 10 CFR 50.36 for the contents of Technical Specifications, and to the improved standard TS approved by the NRC in NUREG-1431, "Standard Technical Specifications – Westinghouse Plants" (Reference 1).

2.0 PROPOSED CHANGES

The proposed license amendment would remove line item 12, PORV Position Indicator, from TS 3/4.3.3.7 Tables 3.3-11 and 4.3-11. With the removal of line item 12, footnote ** on page 3/4 3-55 is revised to reflect the deletion of line item 12

3.0 BACKGROUND

On July 22, 1993, the NRC published its "Final Policy Statement of Technical Specifications Improvements for Nuclear Power Reactors," 58 FR 39132 (Reference 2). This Final Policy Statement established a set of objective criteria as guidance for determining which regulatory requirements and operating restrictions should be included in TS, as follows:

(1) installed instrumentation that is used to detect, and indicate in the control room, a significant abnormal degradation of the reactor coolant pressure boundary;
(2) a process variable, design feature, or operating restriction that is an initial condition of a Design Basis Accident or Transient analysis that either assumes the failure of or presents a challenge to the integrity of a fission product barrier;
(3) a structure, system, or component that is part of the primary success path and which function or actuates to mitigate a Design Basis Accident or Transient that either assumes the failure of or presents a challenge to the integrity of a fission product barrier;
(4) a structure, system, or component which operating experience or probabilistic safety assessment has shown to be significant to public health and safety.

These four criteria were later incorporated into 10 CFR 50.36, "Technical specifications."

NRC-approved NUREG-1431, "Standard Technical Specifications – Westinghouse Plants," identifies an improved standard TS that was developed based on the criteria in the Final Policy Statement.

The proposed changes are consistent with similar changes approved for Sequoyah, Units 1 and 2 on December 7, 1990 (Amendment Nos. 149 and 135, Reference 3), and for McGuire, Units 1 and 2 on July 18, 1994 (Amendment Nos. 144 and 126, Reference 4).

PSEG is requesting approval of the proposed TS change on an emergency basis as permitted by 10 CFR 50.91(a)(5). The regulation at 10 CFR 50.91(a)(5) states that, where an emergency situation exists, in that failure to act in a timely way would result in shutdown of a nuclear power plant, the NRC may issue a license amendment involving no significant hazards consideration without prior notice and opportunity for a hearing or for public comment. The regulation states the NRC will decline to dispense with notice and comment on the determination of no significant hazards consideration if it determines that the licensee has abused the emergency provision by failing to make timely application for the amendment and thus itself creating the emergency. Whenever an emergency situation exists, a licensee requesting an amendment must explain why this emergency situation occurred and why it could not avoid this situation, and the Commission will assess the licensee's reasons for failing to file an application sufficiently in advance of that event.

PSEG could not avoid the emergency circumstance because the discovery of inoperable PORV position indication could not have been foreseen in sufficient time to allow the 30 day public comment period specified in 10 CFR 50.91(2)(ii). PSEG was notified by Dynapar Corporation (Reference 6) that some Namco EA180 and EA170 limit switches manufactured between March 25, 2014, and December 30, 2014, may contain inadequately stress-relieved return springs, preventing the normally closed contacts from returning to their initial position, which could result in an incorrect signal on the position of the valve being monitored. PSEG received notification by the vendor of the issue affecting operability of the PORV position indication while Unit 1 was in Mode 1. Upon evaluation of the vendor information, PSEG concluded the potential for failure of the position switches on the 1PR1 and 1PR2 are such that a reasonable expectation of OPERABILITY cannot be established. The TS action statement for 1PR1 and 1PR2 began on August 28, 2015 at 1630 hours. TS Table 3.3-11, Action 1 requires the inoperable accident monitoring channel to be restored to OPERABLE status within 7 days. Otherwise, the plant is required to be in HOT SHUTDOWN within the next 12 hours. PSEG is required to restore the position switch to OPERABLE status by September 4, 2015 at 1630.

The PORVs are located in the containment in an area in which high temperatures significantly limit the stay-time for maintenance personnel impacting personnel safety. In addition, replacement of the affected position switch would require the PORVs to be stroked for retesting, potentially subjecting the plant to an unnecessary operational transient.

4.0 TECHNICAL ANALYSIS

The proposed license amendment removes the Pressurizer Power Operated Relief Valve (PORV) position indication from the Accident Monitoring Instrumentation Technical Specifications (TS) 3/4.3.3.7 Tables 3.3-11 and 4.3-11 for the Salem Generating Station (Salem) Unit 1.

As discussed in the Regulatory Background section, an NRC Final Policy Statement concluded that those existing TS requirements which do not satisfy one of the four criteria incorporated in 10 CFR 50.36 may be removed from the TS.

Regulatory Guide (RG) 1.97, "Instrumentation for Light-Water-Cooled Nuclear Power Plants to Assess Plant and Environs Conditions During and Following an Accident," Revision 2 (Reference 5), describes a method acceptable to the NRC staff for complying with regulations to provide instrumentation to monitor plant variables and systems during and following an accident in a light-water-cooled nuclear power plant. Type A variables are those to be monitored that provide the primary information required to permit the control room operator to take specific manually controlled actions for which no automatic control is provided and that are required for safety systems to accomplish their safety functions for design basis accident events. Category 1 instruments are designed for full qualification, redundancy, continuous real-time display, and onsite (standby) power.

NUREG-1431 established improved standard TS for Westinghouse plants. The post-accident monitoring instrumentation TS notes several functions that must be covered in TS, including all RG 1.97, Type A instruments, as well as all Category 1, non-Type A instruments specified in the plant's RG 1.97 Safety Evaluation Report.

The Salem Updated Final Safety Analysis Report (UFSAR) identifies "Primary System Safety Relief Valve Positions (including PORV and code valves) or Flow Through or Pressure in Relief Valve Lines" as Type D, Category 2 Variables, consistent with RG 1.97 (UFSAR Section 7.5). Type D variables are those variables that provide information to indicate the operation of individual safety systems and other systems important to safety. Category 2 instruments are designed to less stringent qualifications that do not require seismic qualification, redundancy, or continuous display, and require only a high reliability power source, not necessarily standby power. Removing the PORV position indication from the TS conforms with the NRC position on application of the screening criteria to post-accident monitoring instrumentation.

The PORVs themselves are part of the primary success path in the UFSAR accident analysis because they are assumed to actuate to mitigate a Design Basis Accident (DBA) and therefore meet Criterion 3 of the NRC Final Policy Statement. The operability of the PORVs is therefore required by TS 3.4.3, "Relief Valves." However, PORV position indication does not detect or indicate a significant abnormal degradation of the reactor coolant pressure boundary, as required by Criterion 1. This is consistent with the NRC Final Policy Statement, which provided that Criterion 1 is intended to ensure that those instruments specifically installed to detect excessive reactor coolant system leakage be included in the TS. Criterion 1 is not to be interpreted to include instrumentation installed to identify the source of actual leakage, for example valve position indicators.

PORV position indication is not a process variable, design feature, or operating restriction that is an initial condition of a DBA or transient analysis considered in Criterion 2.

While the function of the PORVs themselves is part of the primary success path in the UFSAR, PORV position indication is not part of the primary success path. UFSAR accident analysis assumes that the PORVs open as designed to reduce reactor pressure and no operator action based on PORV position indication is required. Therefore, PORV position indication is not part of the primary success path as indicated in Criterion 3.

The loss of PORV position indication instrumentation has no effect on the probabilistic safety assessment, and has not been shown to be significant to health and safety as considered in Criterion 4.

The Emergency Operating Procedures (EOPs) provide symptom-based instruction to the operating staff in mitigating an upset condition of the plant. Individual EOPs using PORV position can be accomplished using alternate means regardless of whether PORV position instrumentation is available.

Therefore, PORV position indication instrumentation does not meet any of the four screening criteria of the Final Policy Statement. This conclusion is supported by the absence of operability and surveillance requirements for the PORV position indication instrumentation in the improved standard Technical Specifications (ISTS) presented in NUREG-1431. Accordingly, this proposed change conforms to the ISTS.

5.0 REGULATORY ANALYSIS

10 CFR 50.36 (a)(1) requires that each applicant for a license authorizing operation of a production or utilization facility shall include in its application proposed TS in accordance with the requirements of section 50.36. The TS are part of the facility operating license and any changes to the operating license and TS must be in accordance with 10 CFR 50.90. The changes proposed by this license amendment request conform to these regulations.

No Significant Hazards Consideration

PSEG requests an amendment to the Salem Unit 1 Operating License. The proposed change would remove the Pressurizer Power Operated Relief Valve (PORV) position indication from the Accident Monitoring Instrumentation Technical Specifications (TS) 3/4.3.3.7 Tables 3.3-11 and 4.3-11 for the Salem Generating Station (Salem) Unit 1.

PSEG has evaluated the proposed changes to the TS, using the criteria in 10 CFR 50.92, and determined that the proposed changes do not involve a significant hazards consideration. The following information is provided to support a finding of no significant hazards consideration.

1. Do the proposed changes involve a significant increase in the probability or consequences of an accident previously evaluated?

   Response: No

   The proposed change to the TS would remove the PORV position indication from the Accident Monitoring Instrumentation TS for Salem Unit 1. The failure of this instrumentation is not assumed to be an initiator of any analyzed event in the UFSAR. The proposed changes do not alter the design of the PORVs or any other system, structure, or component (SSC). The proposed changes conform to NRC regulatory guidance regarding the content of plant TS, as identified in 10 CFR 50.36, NUREG-1431, and the NRC Final Policy Statement in 58 FR 39132.

   Therefore, these proposed changes do not represent a significant increase in the probability or consequences of an accident previously evaluated.

2. Do the proposed changes create the possibility of a new or different kind of accident from any accident previously evaluated?

   Response: No

   The proposed changes to the TS would remove the PORV position indication from the Accident Monitoring Instrumentation TS for Salem Unit 1. The proposed change does not involve a modification to the physical configuration of the plant or change in the methods governing normal plant operation. The proposed changes will not impose any new or different requirement or introduce a new accident initiator, accident precursor, or malfunction mechanism.

Additionally, there is no change in the types or increases in the amounts of any effluent that may be released off-site and there is no increase in individual or cumulative occupational exposure. Therefore, the proposed change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. Do the proposed changes involve a significant reduction in a margin of safety?

   Response: No

   The proposed changes to the TS would remove the PORV position indication from the Accident Monitoring Instrumentation TS for Salem Unit 1. This instrumentation is not needed for manual operator action necessary for safety systems to accomplish their safety function for the design basis events. The PORV position instrumentation does not provide an input to any automatic trip function or impact the response of the PORVs to a design basis accident.

   Therefore, the proposed changes do not involve a significant reduction in a margin of safety.

Based upon the above, PSEG concludes that the proposed amendment presents no significant hazards consideration under the standards set forth in 10 CFR 50.92(c), and, accordingly, a finding of "no significant hazards consideration" is justified.

In conclusion, based on the considerations discussed above, (1) there is a reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the NRC's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

6.0 ENVIRONMENTAL CONSIDERATION

A review has determined that the proposed amendment would change a requirement with respect to installation or use of a facility component located within the restricted area, as defined in 10 CFR 20, or would change an inspection or surveillance requirement. However, the proposed amendment does not involve (i) a significant hazards consideration, (ii) a significant change in the types or significant increase in the amounts of any effluent that may be released offsite, or (iii) a significant increase in individual or cumulative occupational radiation exposure. Accordingly, the proposed amendment meets the eligibility criterion for categorical exclusion set forth in 10 CFR 51.22(c)(9). Therefore, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the proposed amendment.

7.0 REFERENCES

1. NUREG-1431, Volume 1, Specifications, Revision 4.0, "Standard Technical Specifications – Westinghouse Plants," dated April 2012, ADAMS Accession No. ML121004A222

2. NRC "Final Policy Statement of Technical Specifications Improvements for Nuclear Power Reactors," dated July 22, 1993, 58 FR 39132

3. Sequoyah Generating Station, Units 1 and 2 – Post Accident Monitoring Instrumentation (TAC Nos. 75841/75842), dated December 7, 1990, ADAMS Accession No. ML013310171

4. McGuire Generating Station, Units 1 and 2 – Issuance of Amendments (TAC Nos. M89020 and M89021), dated July 18, 1994, ADAMS Accession No. ML013230218

5. US NRC Regulatory Guide (RG) 1.97, "Instrumentation for Light-Water-Cooled Nuclear Power Plants to Assess Plant and Environs Conditions During and Following an Accident," Revision 2, dated December 1980

6. NAMCO (Dynapar Corporation), Notification of Product Anomaly Related to Namco EA180 & EA170 Limit Switches Manufactured in a Specific Date Range, July 31, 2015, ADAMS Accession No. MLA15217A309

TECHNICAL SPECIFICATION PAGES WITH PROPOSED CHANGES

The following Technical Specifications for Renewed Facility Operating License DPR-70 are affected by this change request:

Technical Specification	Page
3.3.3.7	3/4 3-54 3/4 3-55 3/4 3-57a

TABLE 3.3-11

ACCIDENT MONITORING INSTRUMENTATION

INSTRUMENT	REQUIRED NO. OF CHANNELS	MINIMUM NO. OF CHANNELS	ACTION
1. Reactor Coolant Outlet Temperature - T_{HOT} (Wide Range)	2	1	1, 2
2. Reactor Coolant Inlet Temperature - T_{COLD} (Wide Range)	2	1	1, 2
3. Reactor Coolant Pressure (Wide Range)	2	1	1, 2
4. Pressurizer Water Level	2	1	1, 2
5. Steam Line Pressure	2/Steam Generator	1/Steam Generator	1, 2
6. Steam Generator Water Level (Narrow Range)	2/Steam Generator	1/Steam Generator	1, 2
7. Steam Generator Water Level (Wide Range)	4 (1/Steam Generator)	3 (1/Steam Generator)	1, 2
8. Refueling Water Storage Tank Water Level	2	1	1, 2
9. deleted			
10. Auxiliary Feedwater Flow Rate	4 (1/Steam Generator)	3 (1/Steam Generator)	4, 6
11. Reactor Coolant System Subcooling Margin Monitor	2	1	1, 2
12. Deleted~~PORV Position Indicator~~	~~2/valve**~~	~~1~~	~~1, 2~~

TABLE 3.3-11 (CONTINUED)

ACCIDENT MONITORING INSTRUMENTATION

INSTRUMENT	REQUIRED NO. OF CHANNELS	MINIMUM NO. OF CHANNELS	ACTION
13. PORV Block Valve Position Indicator	2/valve**	1	1, 2
14. Pressurizer Safety Valve Position Indicator	2/valve**	1	1, 2
15. Containment Pressure - Narrow Range	2	1	1, 2
16. Containment Pressure - Wide Range	2	1	7, 2
17. Containment Water Level - Wide Range	2	1	7, 2
18. Core Exit Thermocouples	4/core quadrant	2/core quadrant	1, 2
19. Reactor Vessel Level Instrumentation System (RVLIS)	2	1	8, 9
20. Containment High Range Accident Radiation Monitor	2	2	10
21. Main Steamline Discharge (Safety Valves and Atmospheric Steam Dumps) Monitor	1/MS Line	1/MS Line	10

(**) Total number of channels is considered to be two (2) with one (1) of the channels being any one (1) of the following alternate means of determining ~~PORV,~~ PORV Block, or Safety Valve position: Tailpipe Temperatures for the valves, Pressurizer Relief Tank Temperature Pressurizer Relief Tank Level OPERABLE.

TABLE 4.3-11 (Continued)
SURVEILLANCE REQUIREMENTS FOR
ACCIDENT MONITORING INSTRUMENTATION

INSTRUMENT	CHANNEL CHECK(1)	CHANNEL CALIBRATION(1)	CHANNEL FUNCTIONAL TEST(1)
12. Deleted~~PORV Position Indicator~~		~~N.A.~~	
13. PORV Block Valve Position Indicator		N.A.	*
14. Pressurizer Safety Valve Position Indicator		N.A.	
15. Containment Pressure - Narrow Range			N.A.
16. Containment Pressure - Wide Range			N.A.
17. Containment Water Level - Wide Range			N.A.
18. Core Exit Thermocouples			N.A.
19. Reactor Vessel Level Instrumentation System (RVLIS)			N.A.
20. Containment High Range Accident Radiation Monitor			
21. Main Steamline Discharge (Safety Valves and Atmospheric Steam Dumps) Monitor			

Table Notation

(1) Frequencies are specified in the Surveillance Frequency Control Program unless otherwise noted in the table.

* Unless the block valve is closed in order to meet the requirements of Action b, or c in specification 3.4.3.